

Name \_\_\_\_\_ Date \_\_\_\_\_

### Three-Level Reading Guide: The Strengths of Bonds

1. Check all the statements below that you believe agree with what the reading says. Sometimes the exact words found in the reading are used. In some statements other words may communicate the meaning of the text.

\_\_\_\_\_ a. Shorter covalent bonds are usually stronger than longer covalent bonds.

\_\_\_\_\_ b. Metals have ionic bonds between the positive nuclei and the negative electrons of their atoms.

\_\_\_\_\_ c. Intermolecular forces are generally weaker than the forces in covalent and ionic bonds.

\_\_\_\_\_ d. Lattice structures are extremely stable.

\_\_\_\_\_ e. Metals are malleable and ductile.

2. Check the statements below that you think are represented in the reading.

\_\_\_\_\_ a. Molecules always have dipoles.

\_\_\_\_\_ b. Ionic compounds are usually crystalline solids due to the electrostatic attractions and repulsions between ions in the lattice structure.

\_\_\_\_\_ c. Metals can be bent because the positive metal ions don't form permanent bonds with the electrons around them.

3. Respond to the statements below, supporting your answers with ideas from the reading and from your own knowledge and experience.

\_\_\_\_\_ a. Magnesium chloride should form crystals like sodium chloride.

\_\_\_\_\_ b. Although intermolecular forces are relatively weak compared to bonds between atoms, they greatly affect the physical properties of some compounds.